

## Fundamental Principles of Health

By ALBERT S. GRAY, M. D.

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### HEREDITY.

Irving Fisher in United States senate document No. 419, "National Vitality, Its Wastes and Conservation," says: "Human vitality depends upon two primary conditions: heredity and hygiene, or conditions during life." And Metchnikoff points out that part of the supposed inheritance of longevity may not be inheritance, but similarity of environment.

Nature's movements are on so vast a scale and contain so many complex and never to be understood forces that balance and counteract each other, that it now seems incredible that the world for so long should have accepted the authority of the past in a matter as vital to human happiness as the old idea of heredity. Fortunately we have finally evolved into the understanding that the final court of appeal is observation and experiment, and not authority, however eminent it may have been in its day and generation. The old axiom, "Like produces like," is now known to be incorrect. No two things can be produced exactly alike, and we know that ability to change is the evidence of life.

A farmer selects as a fine ear of seed corn one in which each kernel conforms in general type to a desirable ancestor, and from this ear he takes the seed for a new crop. Three factors enter into the results from the planting of this seed—heredity, climate, soil. Granting the first two factors to be ideal, there are ten elements required in the soil to produce a development equal in type and vitality to the parent seed. Oxygen, hydrogen, nitrogen, carbon, phosphorus, calcium, sulphur, potassium, iron and magnesium are the necessary elements, and the absence of one of these ten chemicals in necessary amount will determine whether there shall be a partial or even a total crop failure. Corn can be fed and bred up or starved and run down. One community will average ten bushels per acre and another will average 100 bushels per acre. By the intelligent adjustment of all the factors, 239 bushels per acre have been produced.

The same principles and factors apply to the animal kingdom, including man. Heredity determines the type, but environment governs what the individual shall be. In common with the corn of the field and with all other forms of life mankind reacts to the universal laws of change and modification; and this is the hope of humanity. There being no spontaneous generation of the human species, it follows that all are of equally ancient lineage, and investigation will show only a little way back a material taint in the line of the best, judged by present day standards. This is proof that in all life there is an inherent tendency to adapt and advance.

The fundamental problem of man is to stay here on earth—"We don't know where we are going, but we're on the way, and we might as well be comfortable about it. An intelligent application of the laws of heredity as laid down by Mendel, coupled with a rational adjustment of the individual to environment, could make a new race in two generations. We may be ascendent or decadent just as we see fit.

Type is a matter of heredity and counts for about 5 per cent of the individual—environment covers the remaining 95 per cent. A phonograph record disk may be large or small, depending on the type of mold selected to make it. Its capacity is determined by the mold, but whether it shall receive and give out a meaningless jangle of discord, a masterpiece of harmony, or a soul stirring call to human achievement, depends on the impression received after its creation. Whether it be used with intelligent purpose or marred, cracked and scratched by indifferent handling depends on unknown factors. And man, too, is the product of the sum of the impressions received in his experience.

Like the corn plant, man too is the product of three factors covered by the term anthropological, telluric, social, and granting the first two to be ideal, the third involves a complex mass easily accounting for most breakdowns. The human body is made up of 14 elements—oxygen, hydrogen, carbon, nitrogen, phosphorus, calcium, sulphur, chlorine, sodium, iron, potassium, magnesium, silica and fluorine, and to attain perfect development must be supplied with all these elements in suitable quantity.

The now prevailing standard of food values which measures the heat units produced from food and completely ignores all other elements and factors, is not only woefully inadequate in the light of modern science, but constitutes a grave menace to the health, to the morals, to the sanity, and to the life of any people.

Few people are so disagreeable that they can't keep on good terms with themselves.

## THE NATIONAL GRANGE

(Conducted by CHARLES M. GARDNER, Editor of the National Grange, Westfield, Mass.)

### HELPS THE YOUNG PEOPLE

Frequent Evidence of Assistance Given By the Organization Along Educational Lines.

That the Grange stands solidly for helping its young people, particularly along educational lines, is given frequent evidence, in all the organized Grange states; and Connecticut is the latest to inaugurate a definite undertaking in this direction.

At the annual session, recently held in Hartford, the Connecticut State Grange voted unanimously to create a fund for scholarships, out of which deserving Grange young people shall be assisted in getting a better education than the public schools can give them. The project has started with great enthusiasm, backing it up in practical fashion by the appropriation of \$1,000 from the State Grange treasury, with the hearty co-operation and financial support of the Granges all over the state fully assured.

The general plan adopted contemplates the creation of a fund, out of which loans are made to deserving students, with the provision that they may repay the loans as they are able to do so after their education is completed. The executive committee of the State Grange were authorized to co-operate with a board of trustees, chosen to administer the new fund, and to use the entire influence of the State Grange in support of this new educational movement. It is expected that every Subordinate Grange in the state will back up the project by appropriating to it, during the year, a sum equivalent to five cents for each member of each local Grange. To do this most effectively a certain date is to be set, in each year, when the local Granges will definitely set apart one meeting for the raising of funds for this fund. At first the beneficiaries of the fund will be limited to scholarships at the state agricultural college; but it is intended later to so broaden the movement as to allow the young men and women to select other institutions at which to complete their education.

This Connecticut project takes on added significance as a Grange move, from the fact that Connecticut is but following in the steps of two other State Granges in thus moving for the educational assistance of its young people. Three years ago the Massachusetts State Grange established its educational aid fund, the pioneer in work of this sort. So rapidly has it grown, and so heartily has it been financially supported by the patrons of that state that nearly forty Massachusetts Grange young people are now in various educational institutions, pursuing their studies, who could not have been there but for the assistance of the State Grange.

In Missouri the last annual State Grange session established a students and fund, modeled exactly after the Massachusetts' educational aid fund, which is already being gotten into good shape, ready to serve the young people of that state. Thus is the Grange service to the young people of today brought down in vivid fashion to meet the practical necessities of the case.

### SEVERAL NEW LECTURERS.

Several state Granges have new lecturers this year, which is particularly important, because of the fact that each state lecturer is charged with the responsibility of directing the lecture hour programs in all the local Granges in his state. The tone of the Grange, the channels of effort which its energies shall take, and to large degree the influence which the Grange exerts in the community, is determined by the discussions and activities of the lecture hours.

Among the new state lecturers who are taking up this work are the following: In Indiana, W. G. Hays of Worthington; in New Hampshire, Charles W. Varney of Rochester; in Massachusetts, Mrs. George S. Ladd of Sturbridge; in Maine, C. O. Purinton of Bodownham; in Maryland, Reuben Brigham of College Park; in North Dakota, Mrs. C. F. Schick of Lake. The two ladies of the list are as enthusiastic in the work as their brothers, while all these new leaders are wide-awake to the possibilities of their office.

### ANNIVERSARY YEAR.

This year marks the silver anniversary of the Washington State Grange, which was organized September 10, 1889. Due recognition is to be taken of the fact, both at the annual session of the State Grange, which convenes in June, and in general exercises in all the Granges throughout the state during the month of September. The Grange in Washington has grown to be an organization of fully 20,000 members and is a strong force in the public affairs of the state, as well as an influential factor in its political plans. The present state master is C. B. Kegley of Palouse, who has headed the organization for a half dozen years and who travels constantly among the subordinate branches in all parts of the state.

## HOW TO USE ANTI-HOG-CHOLERA SERUM



Injecting Cholera Serum Into Hog.

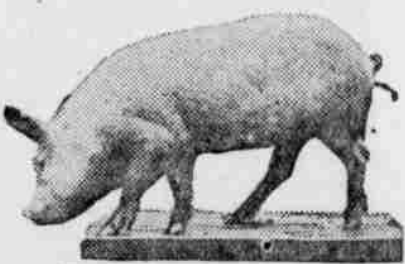
(Prepared by the United States Department of Agriculture.)

At a recent conference of federal and state officials in charge of hog cholera work the methods of applying the cholera serum in practice were considered. There are two methods. In one the serum alone is used, producing immunity lasting from 30 to 90 days; in the other the virus of hog cholera and the serum are injected simultaneously—that is, virus at one point and serum at another. This latter is known as the "simultaneous method" and will produce active or lasting immunity. If the serum used in this simultaneous treatment is not good, or if the mode of application is faulty, disease may be set up in the treated herd. For this reason it was the general consensus of opinion at the conference that the simultaneous method should be used only by those who have had special training, and it was agreed that the ideal arrangement would be to allow its use only by federal and state veterinary officers.

The serum-alone treatment, on the other hand, may be given by anyone without danger of causing hog cholera. If the serum is good the farmer may give it to his hogs without fear, provided it is administered in the proper way. While it would no doubt be best to have even the serum alone administered by a skilled agent, farmers may obtain good results if proper care is used. The farmer should remember that the serum-alone treatment is very different from the simultaneous treatment. The following advice regarding the use of serum is offered for farmers who cannot obtain the services of a skilled agent:

All serum cannot be depended upon and farmers are cautioned against putting implicit confidence in a serum merely because it is labeled "Anti-Hog Cholera." The serum must be prepared right in order to protect hogs. Farmers should use every effort to get a good reliable serum from the state college or from a reliable dealer.

Anti-hog cholera serum is most effective when used as a preventive. It will also cure a large number of hogs in the early stages of the disease. It is of much less value, however, for hogs that are visibly sick. The farmer should make careful preparations



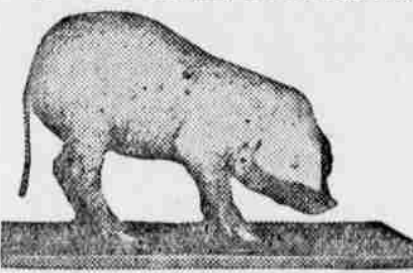
First Stages of Cholera.

Before beginning the inoculation. Hogs that are sick should be separated from the well and marked so as to distinguish them. The pen or inclosure where the injections are made should be clean and free from dust.

The serum is administered by injecting it deep under the skin with a hypodermic syringe. Before beginning the injection of a herd, care must be taken to see that the syringes and needles are not only absolutely clean, but that they have been previously boiled in water for 10 or 15 minutes. The purpose of the boiling is to kill the germs that may be on the instruments. Therefore, both needle and syringe should be kept clean and not allowed to become soiled during use, as by being laid on a dirty plank, dropped on the ground or touched with dirty hands. It is a good idea to spread a clean towel on the plank or table where the work is being done. Before using, the serum should be poured into some receptacle with a cover (a jelly glass with a tin top), both the

receptacle and cover having been sterilized by boiling in water before use. The glass should be allowed to cool before the serum is poured into it, and should be always covered except when serum is being taken from it.

The serum is injected directly into the tissues on the inner side of the thigh or, better, into the loose tissues between the foreleg and the body. The needle is inserted into the skin perpendicularly to a depth of from one-half to 1 inch, depending upon the size of the hog. Before the injection is made the skin of the hog over the point selected for injection should be thoroughly cleansed by washing with soap and water, and the surface then



Last Stages of Cholera.

scrubbed with some reliable disinfectant, such as compound solution of cresol (U. S. P.). This disinfectant can be procured at drug stores, and should be diluted before use by adding one part of it to 30 parts of soft water.

Care should be used in estimating the weight of hogs, because the amount of serum required depends upon the size of the hog injected.

The usual dose is commonly given on the package in which the serum comes. Be careful not to underestimate. Overestimate rather than underestimate, and thereby be sure of giving an ample dose of serum. After the injections are made, the hogs should be turned into a clean yard, free from mud holes and excessive dust. The hogs should be kept in this inclosure for several days at least after the injection, to enable the puncture wounds to heal thoroughly. They should be given soft, easily digested food.

Every farmer should keep an accurate record of the injections he makes, so that he will know what success has attended the treatment. He should make a record of the number of hogs that died from hog cholera before treatment, the number sick and the number apparently well at the time of treatment, and he should later keep a record of the number of sick and well ones that died following treatment. Keeping these records may enable him to determine whether or not the serum he used was good, and it may show whether or not the work was properly done. If any hogs develop abscesses at the point of injection, a note should be made of the fact, keeping account of the number. Abscesses indicate that the serum was not right or that the work was not properly done.

Every farmer should make absolutely certain that no dirt or implement is brought from an infected hog lot into another hog lot. Hog cholera can be carried in dirt on shoes, on wagon wheels, or on the feet of dogs. It has been proved that a pen of hogs infected with hog cholera can be kept within 10 feet of a well herd without communicating the disease, provided no dirt or implement or other object is moved from the former to the latter pen. If, however, the pen with the infected hogs should be cleaned with a hoe or shovel that has been used in the infected pen, the well herd would be almost certain to get the disease. Dogs, crows, and buzzards can transport particles of flesh from dead hogs and thus carry the disease.

## THE KIKIKA CABINET



BE WISE, be cheerful, bright and gay, leave to the fool his folly, And let your motto be "Cheer up," your rule of life, "Be jolly."

### DISHES FOR AFTERNOON RECEPTIONS.

When planning any entertainment in which the food is a chief feature, the appearance as well as the tempting flavor is equally important.

**Layer Sandwiches.**—Have loaves of graham or whole wheat and white bread two days old. Trim off the crust and save for the countless dishes which call for bread crumbs. Cut a slice and spread the end of the loaf with softened butter; cut in wafer-like slices until all is prepared. Have ready some chopped and seasoned ham and a few finely chopped nuts or any two kinds of filling desired, but be sure that they harmonize. On a slice of the buttered bread put a layer of one filling and a layer of the other on the white bread, alternating with the white and brown until a half dozen slices are placed together. Press, to make firm, and cut in slices like layer cake, to serve.

**Roasted Almond Sandwiches.**—Prepare the almonds at home by blanching—that is, boiling in water two minutes then drop in cold water and remove the brown skins. Dry well and cook until brown in a little olive oil; salt well and chop fine. Mix with either mayonnaise dressing or whipped cream, seasoned with paprika. Spread on wafer-like slices of white bread which has been buttered. Maple sugar grated and mixed with cream and chopped almonds makes another delicious filling for sandwiches.

**Small Charlottes.**—For these take three-quarters of a package of gelatin, one cup of powdered sugar, two quarts and a half of thick cream, two tablespoonfuls of vanilla, one-third of a cup of orange juice and three dozen lady fingers. Split the lady fingers and cut each piece in lengths to fit around the sides of paper cases or molds. Put a piece in the bottom of each mold. Have ready chopped nuts and candied cherries or fresh strawberries for garnishing. Soak the gelatin in cold water and whip the cream; add the sugar to the cream, strain in the dissolved gelatin and stir until it begins to thicken, then add vanilla and orange juice. When very thick, fill cases.

Before serving, sprinkle with chopped pistachio nuts and garnish with cherries or strawberries. These forms will hold their shape when turned out on the serving plate, and will serve 25 people.

Nellie Maxwell.

## CASTORIA

For Infants and Children.

The Kind You Have Always Bought

Bears the Signature of J. C. Ayer & Co.

**Sheridan Made the Rime.** The prince regent, afterward George IV., once offered £50 to any one who could find a rime for "porringer." This was merely child's play to Sheridan, who happened to be present. With scarcely a moment's thought he said: The Duke of York's daughter had. He gave the Prince of Orange her. And now, by bounds, I'll take your pounds. For there's a rime to porringer!

A healthy man is a king in his own right; an unhealthy man an unhappy slave. For impure blood and sluggish liver, use Burdock Blood Bitters. On the market 35 years. \$1.00 a bottle. adv

**Youthful Logic.**

"Which one of the ten commandments did Adam break when he ate the apple?" asked the Sunday school teacher.

"He didn't break any," replied one little fellow.

"Why not?" queried the teacher.

"'Cause there wasn't any then."—Chicago News.

**Itch! Itch! Itch!—Scratch! Scratch!** The more you scratch the worse the itch. Try Doan's Ointment. For eczema, any skin itching. 50c a box. adv

**Counts Up.**

"My dear," he said in a mildly reproachful tone, "I have no doubt at all that you are a good bargain hunter and that you always get really excellent bargains, but you get too many of them."—Chicago Post.

**Harsh physics react, weaken the bowels, will lead to chronic constipation. Doan's Regulators operate easily, 25c at all stores. adv**

**Temperate.**

Grimsby—So you want to marry my daughter, sir? What are your principles? Are you temperate? Flegibly—Temperate? Why, I'm so strict that it gives me pain even to find my boots tight.—London Tit-Bits.

Accidents will happen, but the best regulated families keep Dr. Thomas' Electric Oil for such emergencies. Two sizes 25 and 50c at all stores. adv

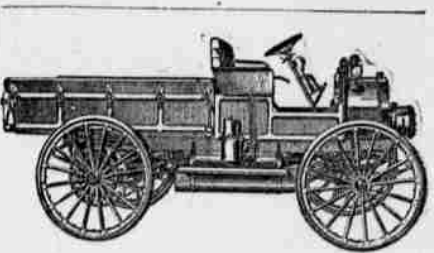
## EXCURSION ON LAKE CHAMPLAIN!

TUESDAY, JULY 28th

Train leaves Hartford 8:01 a. m.; Wolcott 8:14 a. m.; Morrisville 8:30 a. m.; Hyde Park 8:37 a. m.; Johnson 8:48 a. m.; Cambridge Jet. 9:10 a. m.; Jeffersonville 9:14 a. m.; Cambridge 9:20 a. m.; North Underhill 9:36 a. m.; Underhill 9:44 a. m.; Jericho 9:52 a. m.; Essex Center 10:00 a. m.; Essex Jet. 10:20 a. m.; arrive at Burlington 10:45 a. m. Steamer CHATEAUGAY leaves Burlington 11:00 a. m. for a five hours' sail. Returning, train leaves Burlington 4:35 p. m.

Low round trip fares: Hardwick and Wolcott \$1.80, Morrisville \$1.45, Hyde Park \$1.35, Johnson \$1.10, Cambridge Jet. Jeffersonville, Cambridge, North Underhill, Underhill, Jericho, Essex Ctr., etc., Essex Jet. 70c.

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Quicker than horses.

It saves you time.

It saves you money.

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F. L. Smith  
Fletcher, Vt.

### Estate of W. Edward Colby

STATE OF VERMONT.

District of Lamoille, ss.

The Honorable Probate Court for the District aforesaid:

To the heirs and all persons interested in the estate of W. Edward Colby, late of Elmore, in said district, deceased, Greeting:

WHEREAS, application hath been made to this court in writing, by the Administrator of said estate praying for license and authority to sell all of real estate of said deceased to wit: Being all the real estate belonging to said W. Edward Colby, situated in the town of Wolcott, in said district, representing to said court that it would be beneficial to the heirs and all persons interested in the estate of said deceased, to sell said estate and convert the same into money.

And bringing into Court the consent and approbation in writing of all heirs to said estate residing in this State, and setting forth the situation of the real estate.

WHEREUPON, the said Court appointed and assigned the 1st day of July, 1914, at the Probate Office in Hyde Park, in said District, to hear and decide upon said application and petition, and ordered public notice thereof to be given to all persons interested therein by publishing said order, together with the time and place of hearing, three weeks successively in the News and Citizen, a newspaper which circulates in the neighborhood of those persons interested in said estate, all of which publications shall be previous to the day assigned for hearing.

Therefore, you are hereby notified to appear before said Court, at the time and place assigned, then and there in said Court to make your objections to the granting of such license, if you see cause.

Given under my hand at Hyde Park, in said District, this 9th day of July, 1914.

LIZZIE A. WHITE, Register.

### Estate of Frank Kenfield

COMMISSIONER'S NOTICE.

The undersigned, having been appointed by the Honorable Probate Court for the District of Lamoille, Commissioner in and for the estate of Frank Kenfield, late of Morrisville, in said District, deceased, and all claims exhibited in offset thereto, hereby give notice that we will meet for the purposes aforesaid at the office of F. G. Fiske, in the village of Morrisville, in said District, on the Fifth day of August and Fourth day of January next from ten o'clock a. m. until four o'clock p. m. each of said days, and that six months from the third day of July, A. D. 1914, is the time limited by said Court for said creditors to present their claims to us for examination and allowance.

Dated at Morrisville this 7th day of July, A. D. 1914.

F. N. HUTCHINS,  
Commissioner.

### Estate of Geo. E. Mudgett

STATE OF VERMONT—District of Lamoille, ss.

The Honorable Probate Court for the District of Lamoille.

To all persons interested in the Estate of GEO. E. MUDGETT, late of Morrisville, in said District, deceased, Greeting:

At a Probate Court, holden at Hyde Park, within and for said district, on the 1st day of July, 1914, an instrument purporting to be the last Will and Testament of Geo. E. Mudgett, late of Morrisville, in said District, deceased, was presented to the Court aforesaid for Probate.

And it is ordered by said Court that the 20th day of July, 1914, at the Probate Office in said Hyde Park, be assigned for proving said instrument; and that notice thereof be given to all persons concerned by publishing this order three weeks successively in the News and Citizen, a newspaper circulating in that vicinity, in said District, previous to the time appointed.

Therefore, you are hereby notified to appear before said Court, at the time and place aforesaid, and contest the probate of said Will, if you have cause.

Given under my hand at Hyde Park, in said District, this 1st day of July, 1914.

LIZZIE A. WHITE, Register.

### Estate of Udner J. Mudgett

NOTICE OF SETTLEMENT.

State of Vermont, District of Lamoille, ss.—In Probate Court, held at Hyde Park, in said District, on the 30th day of June, A. D. 1914.

Willie M. Parker, Executor of the estate of Udner J. Mudgett late of Wolcott, in said District, deceased, presents his administration account for examination and allowance, and makes application for a decree of distribution and partition of the estate of said deceased. Whereupon it is ordered by said Court, that said account and said application be referred to a session thereof to be held at the Probate Office in said Hyde Park, on the 23d day of July, A. D. 1914, for hearing and decision thereon; and it is further ordered, that notice hereof be given to all persons interested, by publication of the same three weeks successively in the News and Citizen, a newspaper published at Morrisville and Hyde Park, previous to said time appointed for hearing; that they may appear at said time and place, and show cause, if any they have, why said account should not be allowed, and said decree made. By the Court. Attest.

LIZZIE A. WHITE, Register.